

# Appendix H

## SPECIAL AREAS

### Special Area Establishment

Currently, there are 24 special areas designated on the Hoosier National Forest. These special areas occur throughout the Hoosier National Forest on about 17,500 acres of NFS land. The following section provides a brief description and some of the more important recommended management needs for each special area.

Each special area should have a tailored management plan written, regularly reviewed, and updated. The Forest has completed management plans for some, but not all, special areas. Updates to these plans would occur when necessary and appropriate as new information becomes available.

For those areas that do not have management plans completed, the District Ranger will appoint an interdisciplinary team that will conduct an evaluation and write the management plan. The team will conduct inventories based on issues and resource concerns and develop a prescription framework for specific management of the special area.

The report should include any special or unique features and their locations, past research, interested or affected parties, issues and concerns, past and present uses/ecological conditions, general management needs and desired condition, and the team's recommendations. The plan will include specifics on ecological and use potential for the area, as well as specific management needed to achieve the desired condition. The plan will outline periodical and sequential treatments. A key part of each plan will be the monitoring steps established to evaluate management of the area. The interdisciplinary team then presents the management plan to the District Ranger for approval. Special area management plans must be compatible with *Forest Plan* direction.

### Research Natural Area (RNA) Equivalent Designation

As part of a FY 2000 assessment of RNA representation for the Eastern Region some of the Hoosier special areas were noted as being RNA equivalents. For portions of special areas to qualify as RNA equivalents, they must have protection at least equal to that of a RNA. The process involves the identification of natural communities by community pattern and distribution. Each community receives vegetation quality and viability rankings on a scale from probably not viable to excellent quality, according to the best available data for the community. Every community receives three sub-ranks for size, condition, and landscape. To meet the requirement of a RNA equivalent, the area must have an overall ranking better than low quality.

The Forest has designated or incorporated all of the approximately 2,267 acres identified as RNA equivalents in 12 different special areas. The designated special areas provide similar

protection for the areas. Each area containing an RNA equivalent is noted as such in the following text.

## **Special Area Descriptions**

### **Beaver Creek**

*Location:* Beaver Creek is located in Sections 10, 11, 14 and 15 of T3N, R2W, Lawrence County, Brownstown Ranger District.

*Area:* Approximately 186 acres

*Type:* Karst geology

*General Description:* Beaver Creek is an example of a Crawford upland karst valley. Moorestown Rise variously pumps water out of a subterranean conduit in its rise mode, or swallows water when Beaver Creek is in flood.

*Management Needs:* Recommended studies include dye tracing, water quality testing, and specific conductivity analysis. The gated county road that bisects the area from north to south needs to have erosion control measures installed to reduce sediment entering into the creek.

### **Browning Hill**

*Location:* Browning Hill is located in Sections 1, 2, 3, 10, 11 and 12 T7N, R2E, and Sections 6 and 7 T7N, R3E, Brown County, Brownstown Ranger District.

*Area:* Approximately 1,190 acres

*Type:* Oak-hickory woods on ridge tops, mesophytic woods on a northeast facing slope

*General Description:* Relatively undisturbed and contains old growth woods containing trees of a noteworthy size for this area of the state.

*Management Needs:* Use prescribed fire to maintain chestnut oak community on the ridge tops. Illegal horse and bike use is occurring in the area. Management plan needs to address problem and propose potential solutions to curtail this activity.

### **Boone Creek**

*Location:* Boone Creek is located in Sections 25, 26, 35, and 36 T4S R1W and Sections 30 and 31 T4S R1E, Crawford and Perry Counties, Tell City Ranger District.

*Area:* Approximately 700 acres

*Type:* Dry forest and barrens communities. Contains RNA equivalent acres in the little

bluestem-sideoats grama, evergreen, or mixed wooded, herbaceous alliance communities.

*General Description:* The noteworthy features of the site are the barrens community.

*Management Needs:* Use repeated prescribed fire to restore and maintain the barrens and dry forest communities. Future management proposals are necessary for dealing with nonnative invasive plants.

## **Buzzard Roost**

*Location:* Buzzard Roost is located in Sections 31, and 32 T4S R1E, Section 36 T4S R1W, and Section 1 T5S R1E, Perry County, Tell City Ranger District.

*Area:* Approximately 454 acres

*Type:* River bluffs communities

*General Description:* The noteworthy features of the site are the bluffs and the associated species.

*Management Needs:* The Forest needs to make proposals for dealing with nonnative invasive plants, incorporating management of the Buzzard Roost Recreation area, trails, and vistas without degradation to the special features of the area.

## **Carnes Mill**

*Location:* Carnes Mill is located in Sections 11, 12, 13, and 14 T3S, R1W, and Section 18 T3S R1E, Crawford County, Tell City Ranger District.

*Area:* Approximately 280 acres

*Type:* The site is an historic mill site. It is a geologic site with subterranean cutoff forming a cave between the upper and lower curve in the river. The area consists of a dry upland forest community and sandstone cliffs. Contains RNA equivalent acres in the American beech, sugar maple, yellow poplar forest alliance and open bluff/cliff sparse vegetation communities.

*General Description:* The site is a bluff on the Little Blue River and includes an area across State Road 37 that has sandstone cliff communities. An historic mill took advantage of the subterranean cutoff in its operations. The area has special plant communities.

*Management Needs:* The Forest needs to develop proposals to deal with nonnative invasive plants.

## **Clover Lick**

*Location:* Clover Lick is located in Sections 20, 21, 28, 29, 30 and 32, T5S, R1W, Perry County, Tell City Ranger District.

*Area:* Approximately 1,658 acres

*Type:* Dry forest and barrens communities. Contains RNA equivalent acres in the little bluestem-sideoats grama, evergreen, or mixed wooded, herbaceous alliance and the black oak – white oak forest alliance communities.

*General Description:* The noteworthy features of the site are the barrens and associated plant communities.

*Management Needs:* Removal of planted nonnative pines and encroaching brush would help to restore the barrens to its former size. Conducting periodic prescribed burns will continue the restoration of the barrens and the dry forest community. Several nonnative invasive plants are encroaching upon the barrens and control measures are needed. Removal of woody encroachment within the maintained openings allows for collection of Indian grass seed for future restoration projects both within the special area and in other areas on the forest.

## **Deer Creek**

*Location:* The Deer Creek site is located in Sections 16, 20, and 21, T6S, R2W, Perry County, Tell City Ranger District.

*Area:* Approximately 135 acres

*Type:* Dry forest and sandstone cliff communities. Contains RNA equivalent acres in the American beech, sugar maple, yellow poplar forest alliance and open bluff/cliff sparse vegetation communities.

*General Description:* The noteworthy feature of this area is the sandstone cliff community and the presence of associated plant communities. Large sandstone boulders in the creek add to the scenic qualities.

*Management Needs:* Japanese honeysuckle is a nonnative invasive in the area and needs to be controlled.

## **Faucett Chapel**

*Location:* The Faucett Chapel site is located in portions of Sections 3, 4, 9 and 10 of T2N, R2W, Orange County, Brownstown Ranger District.

*Area:* Approximately 89 acres

*Type:* Chinquapin Oak/Twinleaf plant community. Contains RNA equivalent acres in the

chinquapin oak forest alliance community.

*General Description:* The plant community that exists on the site is one that might typically occur on soils derived from limestone. Chinquapin oak and twinleaf are obvious indicators of the site conditions. Removal of some over-story trees in the past had a beneficial effect on this area. Sugar maple in the understory is beginning to limit sunlight reaching the forest floor.

*Management Needs:* The Forest needs to control sugar maple to restore vigor to the understory plants. Several species of nonnative invasive plants occur within the area, but a recent study considered them as medium to low priority for invasive control.

## **Grease Gravy**

*Location:* Grease Gravy is located in Sections 28, 29, and 33 T1N, and R1E, Orange County, Tell City Ranger District.

*Area:* Approximately 254 acres

*Type:* Karst geology and prehistoric animal features

*General Description:* Noteworthy karst community with prehistoric animal features found within the karst features.

*Management Needs:* Monitoring of the karst features should occur to assess public use and determine if it is damaging the special features.

## **Gypsy Bill Allen**

*Location:* Gypsy Bill Allen is located in Section 31 T3N R2W, Section 36 T3N R3W, and Section 1 T2N R3W, Martin and Orange County, Brownstown Ranger District.

*Area:* Approximately 85 acres

*Type:* Karst geology

*General Description:* Karst features including species dependent upon these features, a spring, and exposed rock cliffs, shelters, and joints in a unique geomorphic weathering feature contained in Pennsylvanian age Mansfield sandstone.

*Management Needs:* Ensure the recharge area of the karst features does not add more than background levels of sediment to the system.

## **Harding Flats**

*Location:* Harding Flats is located in Sections 11, 12, 13, 14, 23 T6S, and R2W in Perry County, Tell City Ranger District.

*Area:* Approximately 782 acres

*Type:* Dry upland forest community with barrens. Contains RNA equivalent acres in the little bluestem-sideoats grama, evergreen, or mixed wooded, herbaceous alliance and the black oak – white oak alliance communities.

*General Description:* The area is a dry upland forest with barrens. Eastern redcedar is invading the openings that contain some rare plant species.

*Management Needs:* The management plan for the area recommends removal of invading redcedars by cutting or burning. The continued use of fire is necessary to restore the barrens community. Removal of the nonnative pines in the northern portion of the area would contribute to restoring the barrens. Japanese honeysuckle is degrading the community and project proposals need to include controlling this nonnative invasive species.

## **Hemlock Cliffs**

*Location:* Hemlock Cliffs is located in Sections 3, 4, 5, 8, and 9 T3S R1W in Crawford County, Tell City Ranger District.

*Area:* Approximately 1,860 acres

*Type:* Dry to mesic upland forest and sandstone cliff communities. Contains RNA equivalent acres in the chinquapin oak woodland alliance community.

*General Description:* The site contains Eastern hemlock remnants with cliff communities and associated plants.

*Management Needs:* Maintaining one 26-acre opening by using prescribed fire and mowing will continue. Rock climbing and rappelling have damaged some cliff communities. A forest closure order of the most sensitive part of the cliff has halted the continuation of much of the damage. Trails made by hikers, horse riders, and off-road vehicle users have damaged some areas. Attempts to close the worst of these user made trails has resulted in mixed results. These attempts should continue. The Forest has installed steps on the designated hiking trail to combat erosion on steep portions of the trail, re-routed portions of the trail to higher locations above the drainage, and construction of bridges to reduce impacts. Attempts to vacate old county roads have met with limited success. Before using prescribed fire, the Forest would examine the appropriateness of fire's application as a restoration tool in the upland communities. Several species of nonnative invasive plants have known occurrences within the area. Future control efforts will focus on those invasive species identified as having the greatest threats to the area.

## **Horse Mill Branch**

*Location:* Horse Mill Branch is located in Section 1, T6S, and R1W, Perry County, Tell City Ranger District.

*Area:* Approximately 7 acres

*Type:* Plant community

*General Description:* The area contains an unusual plant community.

*Management Needs:* Continue to monitor the plant community and conduct research to determine what management will best encourage the continuation of the plant community. Other needs include careful treatment to control Japanese honeysuckle without damaging the rare plant located within the special area.

## **Huron Woods**

*Location:* Huron Woods is located in Sections 7 and 18, T3N, R2W, Lawrence County, Brownstown Ranger District.

*Area:* Approximately 132 acres

*Type:* Shawnee Hills upland forest community

*General Description:* One of the least disturbed mesic upland forest communities in the Shawnee Hills Natural Region of Indiana.

*Management Needs:* Garlic mustard, a nonnative invasive plant occurs in the area and needs to be controlled.

## **Luke Knob**

*Location:* Luke Knob is located in Sections 26, 27, 34, and 35, T3N, and R2W, Orange County, Brownstown Ranger District.

*Area:* Approximately 59 acres

*Type:* Dry mesic upland forest

*General Description:* One of the least disturbed dry mesic and mesic upland forests occurring in the Shawnee Hills Natural Region of Indiana.

*Management Needs:* Nonnative invasive inventories identified Bush honeysuckle as a potential problem and it is important to manage for its control.

## **Oil Creek**

*Location:* Oil Creek is located in Sections 31 and 32, T3S, R1W; Sections 5, 6, 7, 8, and 18 T4S, R1W; and Sections 1, 2, 11, 12, 13 14, 23, 24, 25, and 26 T4S, R2W, Crawford and Perry Counties, Tell City Ranger District.

*Area:* Approximately 2,037 acres

*Type:* Cliff communities and associated plants. Contains RNA equivalent acres in the chinquapin oak woodland alliance community.

*General Description:* Contains Abbots Hollow, Jubin Creek, Bear Hollow, Oil Creek Cliffs, and Smith Hollow. These areas are disjunct sandstone cliff communities that have associated plants.

*Management Needs:* Monitor for nonnative invasive plants and treat if necessary.

## **Pioneer Mother's Memorial Forest**

*Location:* The Indiana Pioneer Mother's Memorial Forest is located south of Paoli east of State Highway 37 in Sections 1, 6, 7, 12 T1N, R1W in Orange County, Tell City Ranger District.

*Area:* Approximately 170 acres.

*Type:* The major items of interest in the Pioneer Mothers' Memorial Forest are the trees in the 88-acre, old-growth timber area, a prehistoric Native American village site, and the memorial development. Contains RNA equivalent acres in the white oak forest alliance community.

*General Description:* Pioneer Mothers' Memorial Forest is a 258-acre tract; 88 acres were designated a Research Natural Area by Lyle F. Watts, Chief of the Forest Service, in January 1944. An additional 170 acres provides a protection area around the RNA and is designated the Special Area. The Pioneer Mothers' memorial is located on the trail entering the forest from Forest Road 1022 on the northeast.

*Management Needs:* Monitor visitor use and manage for scenic qualities. Control and manage the nonnative invasive plant populations that are within the area.

## **Plaster Creek**

*Location:* The Plaster Creek site is located in portions of Sections 7, 10, 11 12, 14 and 23 of T2N, R4W, Martin County, Brownstown Ranger District.

*Area:* Approximately 568 acres

*Type:* The site consists of dry upland forest of chestnut oak/blueberry, sandstone cliff community, acid-seep spring community, bottomland hardwood forest of swamp white oak, sweetgum, and red maple. Contains RNA equivalent acres in the rock chestnut oak forest alliance; the American beech, sugar maple, yellow poplar forest alliance; the little bluestem-sideoats grama, evergreen, or mixed wooded, herbaceous alliance; the fringed sedge – royal fern/sphagnum spp. Saturated herbaceous alliance; the open bluff/cliff sparse vegetation; and the pin oak seasonally flooded forest alliance communities.



*General Description:* Area occurs adjacent to a series of sandstone bluffs paralleling Plaster Creek. A dry forest of chestnut oak, blackjack oak, and blueberry occur on the uplands. The few-flowered nut rush occurs here. This is the northernmost occurrence of blackjack oak on the Forest. The sandstone cliffs support hay-scented fern and cliff club moss. At Plaster Creek acid-seep, springs occur along the base of the cliffs. Cinnamon fern, royal fern, sphagnum moss, and green wood orchid occur there. The bottomland forest contains swamp white oak, swamp cottonwood, red maple, sweetgum, and yellow poplar with an understory of spicebush and winterberry.

*Management Needs:* Nonnative shortleaf pine seedlings occur in the dry forest above the seeps. The management plan for the area recommends their removal or killing them before they begin to replace the native plants. Reed canary grass, a nonnative invasive plant, threatens the noteworthy plant communities. Management proposals need to control and manage this species.

Visitors to the site have dislodged some plants from the cliffs, and trampling has occurred in the seep areas. Close monitoring of use should continue and if damage reaches unacceptable levels, the Forest would take appropriate mitigation measures or issue a local closure order.

## **Potts Creek**

*Location:* Potts Creek is located in Sections 8, 16, 17, 19, 20, 21, 30, 31, and 32 of T3S R1W, Crawford County, Tell City Ranger District.

*Area:* Approximately 1,722 acres

*Type:* Plant communities. Contains RNA equivalent acres in the chinquapin oak woodland alliance community.

*General Description:* The area contains unusual plant association communities, including plants at the edge of their range.

*Management Needs:* Reducing competition would lead to increased vigor and reproduction of umbrella magnolia.

## **Rockhouse Hollow**

*Location:* Rockhouse Hollow is located in Sections 24 and 25, T5S, R2W; and Sections 19 and 30, T5S, R1W; Perry County, Tell City Ranger District.

*Area:* Approximately 201 acres

*Type:* Dry upland forest community with barrens and sandstone cliffs. Contains RNA equivalent acres in the little bluestem-sideoats grama, evergreen, or mixed wooded, herbaceous alliance and the white oak forest alliance communities.

*General Description:* The site is an upland forest community ranging from dry to mesic. Sandstone cliffs are also present.

*Management Needs:* The management plan for the area recommends cutting or burning woody plants that are encroaching upon the barrens. Continuation of burning would also be helpful in restoration of the barrens community.

## **Stinking Fork Creek**

*Location:* Stinking Fork Creek is located in Sections 28, 33, 34, and 35 T3S, R1W, Sections 2 and 3, T4S, R1W, Crawford and Perry Counties, Tell City Ranger District.

*Area:* Approximately 579 acres

*Type:* Perennial stream

*General Description:* The site is a high quality example of a medium gradient, perennial stream within the Shawnee Hills Natural Region. Included in the boundary are other special features including cliff communities and their associated plants.

*Management Needs:* Monitor and maintain current health of the stream. Work with Crawford and Perry counties to design in-stream structures for erosion control. Monitor the designated trail (Oriole East) on the south-central boundary of the trail for unacceptable levels of erosion into the creek. If occurring, implement mitigation measures to control this excess erosion.

## **Tar Springs**

*Location:* Tar Springs is located in Section 15, T3S, and R1W, Crawford County, Tell City Ranger District.

*Area:* Approximately 20 acres

*Type:* Petroleum spring

*General Description:* A spring exists at the site from which flows a mixture of water and petroleum in the form of oil and tar.

*Management Needs:* Maintain protection around spring where it surfaces above ground.

## **Tincher**

*Location:* Section 6 T3N, R1W; Sections 1, 2, 3, 4, 5, and 6, T3N, R2W; Sections 15, 16, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 30, 31, 33, 34, 35, and 36, T4N, R2W, Lawrence County, Brownstown Ranger District.

*Area:* Approximately 4,180 acres

*Type:* Karst geology

*General Description:* The main features of this area are its karst formations. There are many sinkholes, swallow holes, and caves. A fault in the Tinchier Pond area exposes a rock conglomerate not commonly seen exposed on the Forest. Preliminary fieldwork on an ecological classification system has identified some soils/geology differences that are likely to lead to the identification of plant communities not found elsewhere on the Forest.

*Management Needs:* The management plan for the area includes recommendations to inventory karst features and rare plant communities. The Forest needs to work with Lawrence County to identify county and non-county roads and eliminate unneeded roads not under county jurisdiction, and stabilize those that are to remain open. Clean up illegal trash dumping on NFS property.

## **Wesley Chapel**

*Location:* Wesley Chapel is located in Section 9, T2N, R1W, Orange County, Brownstown Ranger District.

*Area:* Approximately 188 acres

*Type:* Karst geology

*General Description:* Karst features include caves; sinkholes, and a gulf with a rise recognized as a National Natural Landmark by the USDI National Park Service.

*Management Need:* A 103-acre opening on the southern half of the special area will be maintained to encourage Henslow's sparrows (*Ammodramus henslowii*).